

CDMA Certification Program Management Document

**Revision 7.4
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**CTIA Certification Program
1400 16th Street, NW, Suite 600
Washington, DC 20036**

**e-mail: certification@ctia.org
Telephone: 1.202.785.0081**

www.ctia.org/certification

Table of Contents

1. OVERVIEW	3
1.1. Document Scope	3
1.2. Definition of Terms.....	3
1.3. Roles and Responsibilities	4
1.3.1. CTIA.....	4
1.3.2. CTIA Authorized Testing Laboratories.....	4
1.3.3. Vendors	4
1.4. Award of the CTIA Certification Seal.....	5
1.5. Is CTIA Certification Mandatory?	5
1.6. Eligible Participants	5
2. PROGRAM PROCEDURES	5
2.1. Test Facilities	5
2.2. Use of CTIA Certification Test Plans	5
2.3. Certification Fees.....	6
2.4. Certification Process	6
2.5. Award of Certification	6
2.6. Period of Certification	7
2.7. Certification of Re-Labeled Devices.....	7
2.8. Request for De-Certification	7
3. EVALUATION CRITERIA.....	8
3.1. Effective Date	8
3.2. Parametric & Protocol Testing	8
3.3. Over-the-Air Performance Testing.....	8
3.3.1. Testing Required – Head Phantom Only, Head and Hand Phantom, and Free-Space	9
3.3.2. Testing Required – Hand Phantom Only.....	9
3.3.3. Testing Required – Free-Space Only	10
3.3.4. Testing Not Required.....	10
3.4. Cabled Interoperability Testing	11

3.5. Wi-Fi Testing	11
3.6. Hearing Aid Compatibility (HAC) Testing.....	11
3.7. FCC Compliance & RF Exposure.....	11
3.8. Air Interface Compliance (Declaration).....	12
3.9. ESN or MEID Security (Declaration).....	12
3.9.1. ESN.....	12
3.9.2. MEID	12
3.10. A-Key Security (Declaration)	13
3.11. Protection Against False Transmission (Declaration)	13
3.12. User's Manual	13
4. SUPPLIER BEST PRACTICES	14
5. CTIA CERTIFICATION SEAL	14
5.1. Use of the CTIA Certification Seal	14
5.2. Labeling of Certified Devices	14
6. LABORATORY AUTHORIZATION REQUIREMENTS	15
APPENDIX A: LICENSE AGREEMENT	16
APPENDIX B: CTIA CERTIFICATION FEES.....	22
APPENDIX C: CHANGE HISTORY	23

1. Overview

The purpose of the CTIA CDMA Certification Program (“Program”) is to verify conformance of CDMA wireless devices to defined industry standards. Verification is accomplished by performing an independent evaluation utilizing criteria defined by the wireless industry.

The benefits of CTIA Certification include:

- Providing assurance to carriers that devices being purchased meet minimum performance requirements defined by the industry
- Speeding time-to-market for new devices by providing vendors with industry-wide common baseline performance requirements to which new devices can be tested.

The Program is part of the CDMA Certification Forum™¹ (CCF) certification program and identified as a “market endorsement” to CCF Certification. The CCF Certification Program, and its market endorsements, is described in the CCF Certification Process Guide, available at <http://www.globalccf.org/>.

Devices that may be certified include, but are not limited to, mobile phones, tablets, wireless data devices, modules and devices with embedded modules.

1.1. Document Scope

This Program Management Document (PMD) defines the requirements and processes of the CTIA CDMA Certification Program. For device vendors, this document describes the requirements for obtaining and maintaining CTIA Certification and the process to apply for certification. For test laboratories, this document describes the requirements to become a CTIA Authorized Testing Laboratory (CATL) and the procedures to evaluate vendors’ devices.

1.2. Definition of Terms

Term	Definition
Converged Device	A Device with Wi-Fi technology.
Device	A wireless device operating in the frequency bands of 800/850 MHz, 1900 MHz or 1700/2100 MHz.
ECO	Engineering Change Order. A hardware or software upgrade of a Device previously submitted for Certification.
Integration	A Device containing a certified module.
Module	A Device requiring integration into a final consumer device. Is it optional, but recommended, that the module obtain certification. The final integrated consumer device will

¹ CDMA Certification Forum is a registered trademark of the CDMA Certification Forum

	require certification. The advantage of obtaining certification of the module itself is to provide an assurance to the integrator that the module meets CTIA's requirements. Integrated devices incorporating certified modules may then be certified using a reduced testing process and a reduced certification fee.
Re-Labeled Device	A device that is identical to a currently certified device, but has a different vendor name and model name/number.
Variant	A Device, from the same vendor, that is similar to another Device (Parent) previously submitted for certification. The Variant has a unique model name/number.

1.3. Roles and Responsibilities

This section describes the roles and responsibilities of the parties involved with the CTIA Certification Process and mentioned throughout this document.

1.3.1. CTIA

As owner of the CTIA Certification Program, CTIA defines the requirements for CTIA Certification, administers the overall program and awards CTIA Certification to the vendor.

1.3.2. CTIA Authorized Testing Laboratories

CATLs shall at all times maintain compliance with the Policies and Procedures for CTIA Authorized Testing Laboratories document. Interested organizations may contact CTIA to obtain a copy of this document. CATLs have the authority to perform certification testing for the CTIA Certification Program and must follow the procedures described in [Section 2](#) of this document.

Each CATL shall appoint a Primary Point of Contact (PoC) to interface with CTIA. The PoC is responsible for approving who within their company shall be given access to the certification database and for informing CTIA when individual user access should be disabled (for example, when a user leaves the company).

1.3.3. Vendors

Vendors desiring CTIA certification of a device must follow the procedures described in [Section 2](#) of this document. Certification testing may be conducted at any of the available CATLs per the vendor's choice.

Each vendor shall appoint a Primary Point of Contact (PoC) to interface with CTIA. The PoC is responsible for approving who within their company shall be given access to the certification database and for informing CTIA when individual user access should be disabled (for example, when a user leaves the company).

1.4. Award of the CTIA Certification Seal

Award of the CTIA Certification Seal solely constitutes CTIA's judgment that a device has met or exceeded the requirements specified in this document. Award of the CTIA Certification Seal is not an endorsement of a device. Carriers and consumers should procure devices best meeting their needs and should make their own determination as to the importance of selecting devices that are CTIA certified.

1.5. Is CTIA Certification Mandatory?

The CTIA CDMA Certification Program is a voluntary program operating at the request of and for the benefit of CTIA members. CTIA Certification is not a requirement for sale of a device in North America. The Program is developed by CTIA with the assistance of industry advisory groups comprised of representatives from the wireless carriers, device vendors, testing laboratories and test equipment vendors.

1.6. Eligible Participants

All vendors may participate in the CTIA Certification Program. CTIA membership is not required to be a program participant.

2. Program Procedures

2.1. Test Facilities

Multiple laboratories are authorized to perform certification testing for the CTIA Certification Program. Labs are authorized per CTIA Certification Test Plan.

A current listing of CATLs can be found at www.ctia.org/certification.

Vendors may utilize CATLs for pre-certification testing as per Section 2.2 of this document.

2.2. Use of CTIA Certification Test Plans

As noted in the copyright statement on each of CTIA's certification test plans, only CATLs are permitted to use the test plans for commercial testing purposes. No other test labs are permitted to use these test plans. The test plans may not be altered or reproduced in any way without prior permission from CTIA. No portions of the test plans may be used in other documents without prior permission from CTIA.

CATLs shall refer to the *CATL License and Service Agreement* for the terms and conditions under which the certification test plans may be used.

For CTIA certification, the test plans must be run in their entirety. No tests shall be omitted. The only exception to this rule is in cases where no testing is required (for example, see Section 3.3 of this document), but the vendor requests the CATL to run

portions of a test plan; in this case, the CATL shall prominently place an explanation on the cover of the test report.

Use of CTIA certification test plans for pre-certification testing is permitted under the following conditions. The CATL shall inform CTIA of the vendor name and model name/number of the device to be tested by sending an e-mail to certification@ctia.org. The CATL shall prominently label on the cover of the test report: "Pre-Certification Test Report. For [vendor name] internal use only." There is no CTIA certification fee for pre-certification testing. Within a reasonable period of time, the vendor is expected to submit a certification request following the procedures in Section 2.4 of this document.

Use of CTIA certification test plans for purposes outside of CTIA Certification must be pre-approved by CTIA. The CATL shall submit a request via CTIA's Certification Database at <https://cpo.ctia.org/> by selecting Non-Certification Testing, Submit Request. If approved, the CATL shall prominently label on the cover of the test report: "Test run with permission from CTIA. Device was not submitted for CTIA Certification".

2.3. Certification Fees

Vendors shall pay a certification fee to the CDMA Certification Forum (see **APPENDIX B: CTIA Certification Fees**) and shall inform the CCF (info@globalccf.org) if a P.O. number shall be noted on CCF's invoice to the vendor. Vendors shall also pay a certification testing fee to each CATL utilized for certification testing. Certification testing fees will be independently determined by each CATL.

2.4. Certification Process

Please refer to the CCF Certification Process Guide for details on the certification process. Certification requests shall be entered into the CCF's Certification Database at <https://www.globalccfcert.org>. When submitting the request, the CTIA Certification Market Endorsement checkbox shall be selected:

Market Endorsements: ☒ CTIA Certification

2.5. Award of Certification

Upon completion of the following items, the device will be certified:

- Final test results, indicating the device has passed all required tests, from each CATL conducting testing on the device
- All required documents and declarations from the vendor
- Certification of the parent device, in the case of Variant Certification Requests and ECO Certification Requests
- Payment of the certification fees, in the case of Initial Certification Requests and Variant Certification Requests
- Fully executed License Agreement (See **APPENDIX A: License Agreement**)

The device will then be available for view on CTIA's web site at www.ctia.org/certification (only vendor name, model name/number, FCCID and supported technologies/frequencies will be shown).

2.6. Period of Certification

Provided that all terms defined in this document are met, CTIA Certification is valid the life of the device. Certification records, however, are only retained by CTIA for a period of 5 years from the date of certification.

CTIA may randomly retest previously certified production devices at its expense. If units are found to be no longer in compliance with the certification requirements, CTIA will immediately notify the device vendor. Vendors may be given a maximum of 30 days to address and resolve the items that are found no longer compliant. However, all terms and conditions are at the discretion of CTIA.

2.7. Certification of Re-Labeled Devices

A re-labeled device is defined as a device that is identical to a currently certified device, but has a different vendor name and model name/number.

The re-labeling vendor may certify a re-labeled device by entering the device into the CCF's Certification Database as an Initial certification:

- The re-labeled vendor name and model name/number shall be entered
- The CATL used for the originally certified device shall be chosen
- The CATL shall upload the test reports of the originally certified device along with two additional documents:
 - A Product Equality Letter from the re-labeling vendor. This letter shall state that the re-labeled device is the same as the originally certified device (referenced by vendor name and model name/number as it appears in the CCF's Certification Database) and that no changes have been made other than the vendor name and model name/number. The letter shall be signed and dated.
 - An Authorization of Use Letter from the vendor of the originally certified device. This letter shall state that the vendor of the originally certified device allows the CATL to use the test reports from this device for certification of the relabeled device. The letter shall be signed and dated.

The certification fee is the same as that of a Variant request.

2.8. Request for De-Certification

Vendors may at any time request de-certification of a certified device. CTIA will terminate the device's certification and remove the device from the list of CTIA certified devices (see Section [2.5](#)).

The process for requesting de-certification is as follows:

- 1) The vendor shall submit to CTIA a written request to decertify the device
- 2) The device shall be referenced by its device name and FCC ID as indicated in the CTIA Certification License Agreement
- 3) The request shall be submitted via company-sponsored e-mail or via letter on company letterhead

CTIA may query the vendor as to the purpose of removing or de-listing a device; and shall keep this information in confidence.

3. Evaluation Criteria

3.1. Effective Date

The applicable certification criteria for a given device will be those in effect, as defined in this PMD, on the date the certification request is submitted. Should the criteria change while the device is undergoing certification testing, the vendor may choose to utilize the new criteria.

The CTIA Certification Test Plans referenced in this section may be downloaded from CTIA's web site at www.ctia.org/certification. The latest revision at the time the request is submitted shall be used. All testing must be performed in CTIA Authorized Testing Laboratories.

3.2. Parametric & Protocol Testing

All devices must be tested to CTIA's Test Plan for CDMA Mobile Stations.

3.3. Over-the-Air Performance Testing

All devices must be tested to CTIA's Certification Test Plan for Mobile Station Over the Air Performance. The applicability of this test is shown below.

If the device supports receive diversity, the diversity test condition of Primary Receiver Enabled/Secondary Receiver Disabled shall be tested. Optionally, upon request of the carrier, Secondary Receiver Enabled/Primary Receiver Disabled may be tested as well. The Secondary Receiver Enabled/Primary Receiver Disabled test condition will be required as part of CTIA certification testing after September 30, 2012.

FLO Receiver Performance testing is not required for MediaFLO-capable devices.

For ECOs, testing must be conducted if the changes impact any of the following areas:

- Hardware design
- Calibration data/procedure

- Maximum output (radiated) power

If the changes do not impact these areas AND the conducted RF measurement has not changed +/- 1 db, then Over the Air Performance Testing on the ECO is not necessary.

3.3.1. Testing Required – Head Phantom Only, Head and Hand Phantom, and Free-Space

- Devices supporting usage against the head

Note: If a device has multiple mechanical configurations in which to make a call, each mechanical configuration representative of end use, where the receiver is placed on the ear, shall be tested (e.g., a portrait slide phone shall be tested in both slide open and slide closed positions, a side slide phone shall be tested only in the slide closed position, a fold phone shall be tested only in the open position). Device mechanical configurations that are not representative of end use, where the receiver is placed on the ear, do not need to be tested in head phantom only, head and hand phantom, and free-space conditions. Devices that exceed the maximum dimensions specified for the hand phantom configurations defined in the CTIA Test Plan for Mobile Station Over-the-Air Performance do not need to be tested in the head and hand phantom condition. For the tested mechanical configurations and in the free-space configuration, all cellular radio modes capable of voice and data operation shall be tested. For the tested mechanical configurations and in the head-adjacent configurations, all cellular radio modes capable of voice operation shall be tested. In the case of cellular data modes in head-adjacent configurations, these radio modes would be tested only if the device, as manufactured, supports voice operation over the data connection (e.g. VoIP). GPS OTA testing is not required in the head phantom only and free-space configurations as specified in the CTIA Test Plan for Mobile Station Over-the-Air Performance. Also, the vendor shall submit to the CATL a declaration of the primary mechanical mode as referenced in the test plan. The CATL shall use the primary mechanical mode when applying the pass/fail limits.

Note: Head Phantom Only testing will not be required when using Revision 3.2 of the CTIA Test Plan for Mobile Station Over-the-Air Performance. Head Phantom Only testing will continue to be required when using Revision 3.1 of the CTIA Test Plan for Mobile Station Over-the-Air Performance.

3.3.2. Testing Required – Hand Phantom Only

- Devices supporting data usage in the hand phantom only test configuration (devices that also support usage against the head shall also be tested per Section 3.3.1 of this document)

Note: If a device has multiple mechanical configurations in which it can be held in the hand for data usage scenarios where the display is visible to the end user, each mechanical configuration representative of end use shall be tested as long as the device can still meet the maximum dimensions specified for the hand phantom configurations defined in the CTIA Test Plan for Mobile Station Over-the-Air Performance. Device mechanical configurations that are not representative of end use in the hand for data usage scenarios where the display is visible to the end user or exceed the maximum dimensions specified for the hand phantom configurations defined in the CTIA Test Plan for Mobile Station Over-the-Air Performance do not need to be tested in the hand phantom only condition.

For the tested mechanical configurations, all cellular radio modes capable of voice and data operation shall be tested. Also, the vendor shall submit to the CATL a declaration of the primary mechanical mode as referenced in the test plan. The CATL shall use the primary mechanical mode when applying the pass/fail limits.

3.3.3. Testing Required – Free-Space Only

- Fixed wireless, telemetry, telematics and data-only devices with an integrated, non-removable antenna attached to the device
- Fixed wireless, telemetry, telematics and data-only devices with a removable antenna physically attached to the device
- Fixed wireless, telemetry, telematics and data-only devices with a removable antenna connected directly to the device via an RF transmission line (such as a coaxial cable) less than 20 cm in length
- Notebooks, Tablets and Ultra-Mobile PCs with embedded WWAN (Wireless Wide Area Network) radio modules. **Note:** Free-Space testing is optional for notebooks subject to PTCRB testing which qualify as “Child” platforms under sections 11.11.5 and 11.11.6 of the PTCRB PPMD.
- Large Devices – These would include devices such as parking meters, vending machines etc.

Physically large or heavy devices that cannot be placed in an OTA chamber, might be tested in a configuration that represents the actual usage (e.g. antenna mounted on a ground plane 2' X 2' or other material used on the actual device)

3.3.4. Testing Not Required

Note: The lab shall provide a document stating that the device falls into one of these categories. The vendor shall consult with the carrier(s) to which they intend to sell the device to determine whether carrier-specific testing may be required.

- Fixed wireless, telemetry, telematics and data-only devices without a defined antenna
- Fixed wireless, telemetry, telematics and data-only devices with a removable antenna that is connected to the device through an RF transmission line (such as a coaxial cable) greater than 20 cm in length and not physically attached to the host device
- Modules
- PCMCIA cards and ExpressCards
- USB modems
- Variants or re-branded devices having no altered RF performance from their parent device

3.4. Cabled Interoperability Testing

Should the device require cabled interoperability testing, the vendor shall check the Cabled IOT “Device Endorsement” when submitting the certification request via the CCF’s Certification Database and select one or more CATLs for such testing:

Device Endorsements: ☒ Cabled IOT

3.5. Wi-Fi Testing

Devices that incorporate Wi-Fi technology (“Converged Devices”) shall be tested to the CTIA/Wi-Fi Alliance Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices. The vendor shall check the Wi-Fi feature when submitting the certification request via the CCF’s Certification Database and select a CATL for such testing:

Features:

HAC ☐

Wi-Fi ☒

3.6. Hearing Aid Compatibility (HAC) Testing

Devices that are hearing aid compatible may optionally be tested to CTIA’s Certification Test Plan for Hearing Aid Compatibility. This is not a requirement for certification. Should a vendor choose to have the device tested to CTIA’s Certification Test Plan for Hearing Aid Compatibility, the vendor shall check the HAC feature when submitting the certification request via the CCF’s Certification Database and select a CATL for such testing:

Features:

HAC ☒

Wi-Fi ☐

If the HAC feature is checked, the following items shall be considered:

- If the manufacturer has declared an M rating for the device, the device shall be tested to Section 2 (RF Emissions Measurements) of the test plan.
- If the device supports T-coil and the manufacturer has declared a T rating for the device, then Section 3 (Audio Band Magnetic Field Measurements) of the test plan shall be performed.

3.7. FCC Compliance & RF Exposure

Vendors shall comply with the relevant Rules and Regulations of the FCC, and the FCC guidelines for RF exposure to obtain CTIA Certification.

Vendors shall obtain an FCC Grant of Equipment Authorization and provide the associated FCCID during the certification submission process.

3.8. Air Interface Compliance (Declaration)

Vendors shall provide a vendor declaration stating that the device submitted for certification fully complies with industry standard IS-2000.

3.9. ESN or MEID Security (Declaration)

Either an ESN (Electronic Serial Number) or MEID (Mobile Station Equipment Identifier) Security Declaration shall be provided.

3.9.1. ESN

The ESN requirement is derived from industry standard *TIA/EIA-553-A*, Section 2.3.2, and FCC Rules and Regulations Part 22.919.

The ESN shall be factory set and shall not be alterable, capable of duplication or removable outside of a vendor owned facility². Any attempt to remove, tamper with, or change the ESN host component or operating system as originally programmed by the vendor shall render the unit inoperative.

Where a dedicated ESN device is utilized it shall be permanently³ attached to the device that reads the ESN and the path to the device shall be secured. The device shall not be removable and its pins shall not be accessible.

Where the ESN resides with other memory, the encoding technique shall include multiplication or division by a polynomial, cyclic coding, or the spreading of ESN bits over non-sequential memory locations.

Unauthorized alteration of the device's operating software shall render the device inoperable.

Vendors shall provide a vendor declaration detailing the steps taken to comply with IS-2000 (Serial Number). Please describe the methods employed to ensure physical ESN security and firmware methods used to ensure ESN security.

3.9.2. MEID

The MEID requirement is derived from industry standard 3GPP2 C.S0072, Section 2.1.1.

The MEID shall be factory set and shall not be alterable, capable of duplication or removable outside of a vendor owned facility⁴. Any attempt to remove, tamper with, or change the MEID host component or operating system as originally programmed by the vendor shall render the unit inoperative.

²The vendor shall be responsible for the security of its facilities.

³Permanently is defined as potted, epoxied, or soldered.

⁴The vendor shall be responsible for the security of its facilities.

Where a dedicated MEID device is utilized it shall be permanently⁵ attached to the device that reads the MEID and the path to the device shall be secured. The device shall not be removable and its pins shall not be accessible.

Where the MEID resides with other memory, the encoding technique shall include multiplication or division by a polynomial, cyclic coding, or the spreading of MEID bits over non-sequential memory locations.

Unauthorized alteration of the device's operating software shall render the device inoperable.

Vendors shall provide a vendor declaration detailing the steps taken to comply with 3GPP2 C.S0072. Please describe the methods employed to ensure physical MEID security and firmware methods used to ensure MEID security.

3.10. A-Key Security (Declaration)

The A-Key security requirement is derived from the TIA Ad Hoc Authentication Group (AHAG) and the CTIA Fraud Technical Advisory Group (FTAG). Security procedures are also derived from the TIA/EIA-553-A, Section 2.3.2, and FCC Rules and Regulations Part 22.919.

An A-Key value shall not be visible/readable through a device's display, or electronically removable through a device's data port.

An A-Key shall adhere to the same tampering guidelines as defined for ESN security.

A secure method of transferring a device's vendor assigned A-Key to the device's Home Location Register/Authentication Center (HLR/AC) shall be observed.

A device's Shared Secret Data (SSD) value shall not be accessible to an external device; visible through a device's display; or electronically removable or programmable through a device's data port.

Vendors shall provide a vendor declaration detailing the methods employed to ensure physical A-Key security and firmware methods used to ensure A-Key security.

3.11. Protection Against False Transmission (Declaration)

Vendors shall provide a vendor declaration describing the method used to comply with IS-2000 (Protection Against False Transmission).

3.12. User's Manual

A user's manual/guide for the device shall be supplied. A draft version is acceptable.

⁵Permanently is defined as potted, epoxied, or soldered.

4. Supplier Best Practices

The wireless industry has developed a set of “Best Practices” for suppliers of wireless devices, which can be found at www.ctia.org/certification. While vendors are encouraged to utilize these best practices, they are not required for a device to be certified.

5. CTIA Certification Seal

When CTIA Certification is awarded to a specific device, the vendor is entitled (in accordance with the License Agreement – refer to [APPENDIX A: License Agreement](#)) to display on that device the CTIA Certification Seal:



Digital files for reproduction of the seal will be supplied to vendors upon request.

5.1. Use of the CTIA Certification Seal

Use of the seal is optional. However, when used, the seal must be displayed as a physical Seal affixed to a certified device and/or its packaging.

Before displaying the Seal, the device must be certified.

The Seal may be used in the vendor’s advertising and product promotion material.

The Seal is not transferable.

5.2. Labeling of Certified Devices

Vendors are encouraged to display the CTIA Certification Seal on devices in one of the following ways:

- 1) Directly to the device by painting masking or impressing into the device’s case or housing.
- 2) By means of imprinting on the device’s data plate (FCC Label).
- 3) Directly on the device’s packaging and on the device’s owner’s manual.

The Seal may be located anywhere on the device, including the battery compartment, but cannot be affixed to the battery or to the battery charger.

For transportable and vehicle-installed devices, the Seal may be part of the handset or control head data plate or may be affixed anywhere on the handset or control head. However, the Seal may not be affixed to a transportable’s battery or battery charger.

Vendors are encouraged to display the CTIA Certification Seal, in color, on the device's packaging.

The Seal shall be acquired or developed by the vendor. Certification Seals will not be supplied by CTIA. Artwork for the CTIA Certification Seal is available from the CTIA Certification Program staff.

There are no specific size requirements or restrictions for labeling. The Seal shall be large enough that the text is legible and the size shall be appropriate for the device or packaging on which it is displayed.

Upon expiration or revocation of certification, the vendor shall discontinue display of the CTIA Certification Seal from all devices and their packaging.

6. Laboratory Authorization Requirements

Please see the Policies and Procedures for CTIA Authorized Testing Laboratories document.

APPENDIX A: License Agreement

LICENSE AGREEMENT

THIS AGREEMENT is made at Washington, D.C.,

this ____ day of ____, ____
(month) (year)

by and between

CTIA - The Wireless Association®
("CTIA")

and

("SUBMITTER")

RECITALS

Submitter has entered into a voluntary relationship with CTIA for the testing of certain wireless radio devices or equipment manufactured by or for the Submitter, and Submitter has demonstrated to CTIA's satisfaction that the

Model Name & Number: _____
FCC ID: _____

meets CTIA's requirements for Certification.

For these reasons, and for other good and lawful reasons and in consideration of the covenants set forth below, the parties agree as follows:

SECTION ONE CERTIFICATION

1.1 The Recitals are hereby incorporated in the same manner as if the same were repeated herein. Submitter is hereby granted a nonexclusive license to represent the specified product as meeting CTIA's requirements for certification based on the guidelines set forth in exhibits A and the CTIA Certification Program Management Document, and to use the CTIA Certification Seal in reference to the specified product in accordance with the terms of this Agreement. CTIA warrants that it has full power and authority to grant the rights herein granted.

1.2 CTIA will permit the use of appropriate references to CTIA and its Certification Seal solely in connection with the specified product. The CTIA Certification Seal or other registered CTIA marks, or any other reference, which may be interpreted to mean CTIA, may appear in advertising, promotional material or other literature to indicate the specified product meets CTIA's requirements for certification.

1.3 Submitter agrees to amend or discontinue the use of the CTIA Certification Seal upon the written request of CTIA.

1.4 References to CTIA and the CTIA Certification Seal shall not be misleading as to the extent of certification.

1.5 Submitter shall be entitled to utilize CTIA's Certification Seal for as long as the specified product meets CTIA's requirements for certification. Submitter will discontinue use of the CTIA Certification Seal upon receipt of CTIA's formal written notice (as set forth in exhibit A) to do so.

SECTION TWO COMPLIANCE

2.1 The specified product shall comply with all of CTIA's requirements for certification.

2.2 Submitter assumes full and complete responsibility for its use of the CTIA Certification Seal, and agrees that its use of the CTIA Certification Seal constitutes its declaration that the specified product has been made in compliance with CTIA's requirements for certification.

2.3 Submitter agrees that any tests or sampling of the specified product conducted by CTIA is only a check as to whether the specified product complies with CTIA's requirements for certification and in no way relieves the Submitter of his responsibility for the product.

SECTION THREE CORRECTIVE ACTION

3.1 Should CTIA conduct any tests or examinations of the specified product that disclose that units of the specified product do not comply with the requirements for certification, the Submitter shall, at its own expense, remove the CTIA Certification Seal from all units that in CTIA's opinion do not comply with CTIA's requirements for certification in Submitter's possession, or if the Submitter wishes to maintain the specified product's compliance with the CTIA Certification Seal program, Submitter shall, at its own expense either, rework, recall, or destroy all units of the specified product that in CTIA's opinion does not comply with CTIA's certification requirements at the time the units left Submitter's control. CTIA agrees to provide Submitter in a timely manner with the results of any tests or examinations that disclose that units of the specified product do not comply with the requirements for certification.

3.2 Submitter agrees that it will cooperate with and assist CTIA in ascertaining the facts needed to determine that the specified product complies with CTIA's certification requirements.

3.3 Submitter agrees that with prior written notice to Submitter, CTIA may notify vendors, authorities, potential users, and others of an improper or unauthorized use of the CTIA Certification Seal, or any improper or unauthorized reference to CTIA, when in CTIA's opinion such notification is necessary in the interest of public or for CTIA's own protection.

SECTION FOUR TERMINATION

4.1 This Agreement shall continue so long as the specified product meets the requirements as set forth in Exhibit A, unless termination rights provided for in this Agreement are exercised.

4.2 If Submitter fails to comply with any of the terms and conditions of this Agreement, CTIA may immediately terminate or suspend this Agreement upon written notice to Submitter.

4.3 Upon termination of this Agreement, the license granted by Section 1.1 shall be canceled, and Submitter shall forthwith cease its use of the CTIA Certification Seal in connection with the specified product.

4.4 Termination of this Agreement by whatever means shall not affect any liability of the parties existing as of the date of such termination, and shall not relieve Submitter of its obligation to indemnify CTIA hereunder.

SECTION FIVE INDEMNIFICATION

5.1 Submitter indemnifies and holds harmless CTIA, its officers, directors, employees, members, and agents, against any and all liability, loss, cost, damage, claims, suits or expenses (including reasonable attorneys' fees and costs) of any kind whatsoever, arising in any way from any negligent or willful acts or omission or breach of this Agreement by Submitter or its agents or employees, or from Submitter's use, marketing, or sale of the specified product, including but not limited to third party claims for injury or damage allegedly caused by the performance or failure to perform of the specified product or false or misleading advertising or marketing in connection with the specified product, during the period of this Agreement or thereafter. Conversely, CTIA indemnifies and holds harmless Submitter, its officers, directors, employees, members, and agents, against any and all liability, loss, cost, damage, claims, suits or expenses (including reasonable attorneys' fees and costs) of any kind whatsoever, arising in any way from any negligent or willful acts or omission or breach of this Agreement by CTIA or its agents or employees.

5.2 Submitter shall defend CTIA against any claim to which its indemnity relates, provided that:

- (i) CTIA provides Submitter with notice of the claim promptly after CTIA becomes aware of such claim, and the notice shall state the facts giving rise to such claim;
- (ii) Submitter controls the defense or settlement of such claim, and Submitter shall not settle or otherwise dispose of such claim without CTIA's prior written consent;
- (iii) CTIA cooperates with Submitter in every reasonable way to facilitate the defense or settlement of such claim; and
- (iv) CTIA does not settle or otherwise dispose of such claim without Submitter's prior written consent, and such consent shall not be unreasonably withheld or delayed.

5.3 CTIA shall defend Submitter against any claim to which its indemnity relates, provided that:

- (i) Submitter provides CTIA with notice of the claim promptly after Submitter becomes aware of such claim, and the notice shall state the facts giving rise to such claim;
- (ii) CTIA controls the defense or settlement of such claim, and CTIA shall not settle or otherwise dispose of such claim without Submitter's prior written consent;
- (iii) Submitter cooperates with CTIA in every reasonable way to facilitate the defense or settlement of such claim; and
- (iv) Submitter does not settle or otherwise dispose of such claim without CTIA's prior written consent, and such consent shall not be unreasonably withheld or delayed.

SECTION SIX LIMITATION OF LIABILITY

6.1 Submitter acknowledges and agrees that CTIA shall not be responsible for the loss, damage, or claim in connection with the use or marketing of the specified product, whether liability is asserted in contract or tort (including negligence or strict liability). In no event will either party be liable to the other party, or to any third party, for the loss of profits, loss of use, loss of production, loss of goodwill, or incidental, indirect, or consequential damages of any kind.

6.2 In no event will Submitter be liable to CTIA, or to any third party, for special, incidental or consequential damages (including, without limitation, loss or use, time or data, inconvenience, commercial loss, lost profits or savings) to the full extent such may be disclaimed by law, even if Submitter has been advised of the possibility of such damages.

SECTION SEVEN NO APPROVAL

7.1 This Agreement does not constitute CTIA's guarantee or warranty of the specified product and no representation of any kind by Submitter in connection with its use of the specified product or otherwise will directly or indirectly, explicitly or implicitly convey or suggest any such guarantee or warranty. CTIA may require that a statement disclaiming directly or indirectly CTIA's guarantee or warranty must be included in the marketing and informational materials accompanying the specified product.

SECTION EIGHT INSURANCE

8.1 Submitter will maintain during the period of this Agreement liability insurance of at least two million dollars in policy limits covering claims or suits arising from the specified product, and will include CTIA as an additional insured on the policy as to matters covered by this Agreement, and Submitter will furnish to CTIA evidence of that insurance.

SECTION NINE COUNTERPARTS

9.1 This Agreement may be signed in two counterparts and either party hereto may sign any such counterpart, each of which when signed and delivered shall be deemed to be an original and both of which counterparts taken together shall constitute but one and the same instrument. This Agreement shall become binding when the counterparts shall have been signed and delivered by both parties. Each party intends to sign and deliver this Agreement by uploading an electronic image of their signed signature page into CTIA's Certification Database ("Database"). Each party agrees that the delivery of this Agreement by uploading it into the Database shall have the same force and effect as delivery of original signatures, and that each party may use such electronic images of such signatures received in the Database as evidence of the execution and delivery of this Agreement by both parties to the same extent that an original signature could be used.

IN WITNESS WHEREOF, CTIA and Submitter have executed this Agreement as of the dates set forth below.

CTIA – The Wireless Association®

SUBMITTER

By: _____

Robert Mesirow

Vice President, Operations

By: _____

Name:

Title:

By: _____

Mark Sargent

Assistant Vice President, Certification Programs

Date:

Date:

EXHIBIT A
GUIDELINES FOR MAINTAINING CTIA CERTIFICATION

The license granted in the AGREEMENT shall endure for the term of the AGREEMENT provided that all terms and conditions defined in this AGREEMENT, and the CTIA Certification Program Management Document (PMD) are met. To retain certification throughout the duration of this AGREEMENT, the procedures defined in the PMD must be followed and the requested documentation must be received. The guidelines for submitting documentation and reevaluation are as follows:

1. Notification of any significant hardware or software changes which might affect the performance of products against criteria used for certification must be submitted to a CTIA Authorized Testing Laboratory (CATL) and to CTIA.
2. Failure to submit this notification will prompt the removal of the product(s) under question from the list of CTIA certified products.
3. The CATL will evaluate the changes and determine if regressive testing is necessary. Submitter may appeal the lab's decision to CTIA if regressive testing is felt to be excessive.
4. Submitter shall directly compensate the CATL for testing performed.
5. If the product fails to comply with CTIA's criteria upon a reevaluation, and Submitter elects not to comply with CTIA's criteria within a timely manner, this AGREEMENT and CTIA Certification shall be immediately terminated.

APPENDIX B: CTIA Certification Fees

The following fees are the fees vendors pay to the CDMA Certification Forum for CCF Certification with a “CTIA Certification Market Endorsement”. Certification testing fees are separate from these fees and are determined independently by each CATL.

All fees will be invoiced to the vendor per the guidelines explained in Section 2.3 of this document.

Certification Request Type	Fee (U.S. \$) for Non-Converged Device	Fee (U.S. \$) for Converged Device
Initial	\$12,500	\$15,000
Variant	\$3,125	\$3,750
ECO	0	0

Certification fees are per device.

Fees for Integrations and Re-Labeled Devices are the same as those of Variants.

APPENDIX C: Change History

Revision	Date	Description of Changes
Rev 1.0	October 2001	<ul style="list-style-type: none"> Replaces CTIA Terminal Unit Certification Program Management Document, Issue 4.6, November 2000; and CTIA GSM1900 Terminal Unit Certification Program Management Document, Issue 2.5, November 2000
Rev 2.0	April 2002	<ul style="list-style-type: none"> Changed period of certification to lifetime of product Modified procedures for product Variant submissions Modified ECO procedures Added Request for De-Certification section Added Laboratory Requirements section Modified License Agreement Modified forms and added Variant/ECO form Removed section on Re-Certification Requirements
Rev 2.1	September 2002	<ul style="list-style-type: none"> Editorial revisions Removed references to NAMPS Added Lab Test Procedures section Added Test Failures section Modified number of test samples required Clarified certification award process Added Request for Withdrawal During Certification Application section Added detail to Laboratory Authorization Requirements section Added detail to the following forms: Application for Certification Testing, Notification of Laboratory Completion, Product Variant Request/Notification of ECO
Rev 2.2	January 2003	<ul style="list-style-type: none"> Added references to PCMCIA cards and modules Added Protection Against Accidental 911 Dialing Restructured Certification fees
Rev 3.0	August 2003	<ul style="list-style-type: none"> Modified procedures to incorporate new online certification database Certification fee increase effective June 1, 2003 Mobile Station Antenna Test Plan renamed to Test Plan for Mobile Station Over the Air Performance Updated FDA Consumer Update requirements Certification Seal updated as a registered trademark
Rev 3.1	February 2004	<ul style="list-style-type: none"> Added Consumer Recycling Information CATL logo updated as a registered trademark Clarified Variant and ECO test requirements Removed the requirement to enclose a circuit board diagram with the ESN Security and A-Key Security declarations
Rev 4.0	June 2004	<ul style="list-style-type: none"> Consumer educational requirements moved to Best Practices Certification fees reduced Certification Seal and CATL logo updated Use of Certification Seal now optional Added applicability requirements for OTA Performance testing
Rev 4.1	March 2005	<ul style="list-style-type: none"> Added additional detail to Laboratory Authorization Requirements section Updated OTA Performance testing requirements

		<ul style="list-style-type: none"> • Added definition of “Integration” • Updated CATL logo
Rev 4.2	April 2005	<ul style="list-style-type: none"> • Clarified evaluation criteria for CDMA, TDMA and AMPS products • Identified sections of the test plan for OTA Performance Testing that are not required
Rev 4.3	August 2006	<ul style="list-style-type: none"> • Added Use of CTIA Certification Test Plans section • Added UMTS certification requirements • Updated OTA Performance testing requirements • Updated Certification Testing Checklist • Added process for relabeled products • Added Hearing Aid Compatibility (HAC) testing requirement
Rev 4.4	November 2006	<ul style="list-style-type: none"> • Added reference to Battery Certification Program • Added Converged Device testing requirements • Updated OTA Performance testing requirements • Updated Laboratory Authorization Requirements
Rev 4.5	May 2007	<ul style="list-style-type: none"> • Added requirement for Manufacturer and CATL Primary PoC • Added MEID requirement • Updated certification award process
Rev 4.6	June 2007	<ul style="list-style-type: none"> • Added procedure for CATLs to submit non-certification test requests via online certification database • Added USB modems to Testing Not Required category under Over-the-Air Performance Testing
Rev 5.0	October 2007	<ul style="list-style-type: none"> • Removed GSM and UMTS technologies from the CTIA Certification Program • Corrected numbering in Section One of License Agreement
Rev 5.1	April 2008	<ul style="list-style-type: none"> • Updated definition of Modules • Added Certification of Modules and Integrations section • Added Section Nine (Counterparts) to Appendix A (License Agreement) • Updated certification fees to include Integrations
Rev 6.0	April 2009	<ul style="list-style-type: none"> • Removed Analog and TDMA technologies from the CTIA Certification Program • Added reference to CTIA <i>Bluetooth</i> Compatibility Certification Program • Added 1700/2100 MHz bands • Added instruction for manufacturer to notify CTIA if a P.O. number is required on CTIA's invoice • Updated process for requesting certification database login accounts • Updated OTA Performance testing requirements
Rev 7.0	September 2009	<ul style="list-style-type: none"> • Changed title from Program Management Document to CDMA Certification Program Management Document • Updated to reflect that Program is now part of CCF Certification Program
Rev 7.1	December 2010	<ul style="list-style-type: none"> • Updated OTA Performance testing requirements • Updated HAC testing requirements • Updated Section Five (Indemnification) and signature section of Appendix A (License Agreement)
Rev 7.2	November 2011	<ul style="list-style-type: none"> • Updated OTA Performance testing requirements
Rev 7.3	April 2012	<ul style="list-style-type: none"> • Updated example device types in Overview

		<ul style="list-style-type: none"> • Updated CATL Roles and Responsibilities to reference the Policies and Procedures for CTIA Authorized Testing Laboratories document • Updated OTA Performance testing requirements • Replaced text in Laboratory Authorization Requirements section with a reference to the Policies and Procedures for CTIA Authorized Testing Laboratories document
Rev 7.4	June 2012	<ul style="list-style-type: none"> • Updated head-phantom-only testing applicability under OTA Performance testing requirements